



Northern Highland American Legion State Forest Visitor

Northern Highland-American Legion State Forest

4125 Cty Hwy M

Boulder Junction, WI 54512

www.dnr.wi.gov

Sustainable Forestry

Forestry was born in Wisconsin at the Trout Lake Forestry Headquarters in 1904 when the state hired 12 foresters and established Wisconsin's first tree nursery. The initial forest management efforts were to control forest fires and replant many of our cut and burned over forest areas. Some of the large pines seen today are due to the early work of those first foresters.

In 1996, a revision of the state forest statute (s. 28.04, Wis. Stats.) clarified the purpose of the state forests to more clearly define the broad-based management of state forests, directing them to, "assure the practice of sustainable forestry and provide a full range of benefits for present and future generations". The benefits include, "soil protection, public hunting, protection of water quality, production of recurring forest products, outdoor recreation, native biological diversity, aquatic and terrestrial wildlife, and aesthetics."

Sustainable forestry has many facets of meaning and application to the state forest. Sustainable forestry can be described as the practice of responsible management to obtain all possible benefits the forest is capable of for today and future generations. Sustainable principles provide sideboards to help balance the various values we demand from the forest. Values can range from economic, such as wood products and the jobs that come with logging, to ecological, like diverse old-growth forested stands.

Sustainable forestry takes into account the changing forest and the changing public that lives in or uses the property. Planning forest practices that are both environmentally and economically responsible involves listening to public input and applying the science of forestry. Forests are dynamic and our management adapts to these changes and plans for the future.

A priority of sustainable forestry is to maintain diverse forest communities. Foresters manage forestlands of special significance in a manner that recognizes their uniqueness. Management plans are written to include a variety of goals and level of attention. Each tree, plant, animal, and ecosystem is suited to a specific location. When foresters write management plans for an area, they analyze the sites current and future capabilities to maintain healthy regeneration and provide many other benefits. A state forester also considers how their practices may aid research and add to the base of forestry knowledge to continually improve practices.

Sustainable forestry has present and long-term benefits for Wisconsin and beyond. State forestlands have a great heritage of forestry that is evident today. What we do now will ensure the future with a healthy and productive sustainable state forest.



Trout Lake vista from County Hwy M

Wisconsin's Crown Jewel

As the largest state property, the Northern Highland-American Legion State Forest (NHAL) sits at the top of the state, a fitting location for what is clearly one of Wisconsin's crown jewels of public lands.

In 1925, the Wisconsin Legislature created the forest to preserve the headwaters of the Wisconsin, Manitowish and Flambeau Rivers – once a region of dense towering white pines denuded by logging near the turn of the century.

Glaciers 10,000 years ago lent the land its structure, its hills and lakes, boulders and wetlands. The lakes and rivers are one of the primary features that draw more than 2 million visitors to the forest annually. Fishing, boating, swimming, canoeing and kayaking are all popular summer sports. The forest is also covered with trails and roads that provide opportunities for hiking, biking, and snowmobiling. With some of the most consistent snowfalls in the state, the forest provides more than 400 miles of snowmobile trails that connect with hundreds of more miles of trails.



There are about 40 miles of groomed cross-country ski trails and many more miles of ungroomed trails open to skiing.

There are 18 family campgrounds with 865 campsites in the forest, and two outdoor group camping areas that will each accommodate a total of 80 people. Boat landings are provided at most campgrounds. Five family campgrounds: Crystal Lake, Muskie Lake, Firefly Lake, Clear Lake and Indian Mounds accept reservations. There are also four wilderness camping areas with a total of 12 campsites for which reservations can be made. 78 canoe campsites are located along the many miles of waterways in the forest, with access only by water. Winter camping is permitted at the Clear Lake Campground.

Other features include nature trails, picnic areas with drinking water and toilets, and swimming beaches.

A forest naturalist is on duty from Memorial Day to Labor Day and offers evening programs, including slide shows and films that are presented at Crystal Lake Campground during summer evenings each week.

There are a variety of rare species found in the forest, including endangered, threatened, and sensitive species. Some, such as the spotted salamander, wood turtle, and Cooper's hawk are quite rare and inconspicuous. Others such as the bald eagle, osprey, and common loon can be

frequently seen throughout the forest. Gray wolves have established packs within the forest boundaries and can sometimes be heard howling at night.

Hunting, subject to certain regulations, is permitted in the forest and the area is very popular with many deer hunters.

The NHAL State Forest is also one of Wisconsin's hardest working forests. At any time there may be 30-40 active timber sales in progress within the forest. So don't be surprised to see logging operations take place on your state forest. Not only do these timber sales provide necessary forest products; they also ensure a healthy, sustainable forest that you and others can enjoy for many years to come. Healthy sustainable forests mean fun too. As a matter of fact, nearly all of our cross-country ski and mountain bike trails are the result of timber sales. Many visitors seek out new timber sales because they are great areas to observe wildlife.

Because the Northern Highland-American Legion State Forest is so expansive, it surrounds a number of communities where a wide variety of services and accommodations are available. There is often some special event taking place at one of the small communities located within the forest.

So, come and enjoy some time on the Northern Highland-American Legion State Forest. Truly, one of Wisconsin's crown jewels.

Donations to the Forests

If you enjoy this Forest, you may want to express your appreciation through a gift of money, materials or equipment.

Wisconsin's Forests for the Future Fund is a program created by the Department of Natural Resources that uses donations to plant and manage trees in our state forests. To obtain an informational brochure on this program, stop by the Woodruff Service Center, Trout Lake Headquarters, or contact the Division of Forestry, PO Box 7921, Madison, WI 53707-7921.

Gifts help Wisconsin's state parks and forests provide facilities and services that otherwise would not be possible. For information on materials or equipment donations please contact the Trout Lake Forestry Headquarters, 4125 Cty Hwy M, Boulder Junction, WI 54512.

For more information about Wisconsin's Northern State Forests contact the Division of Forestry or the forest properties:

Division of Forestry
PO Box 7921
Madison, WI 53707-7921
Phone: 608-267-7494

Northern Highland-American Legion State Forest
4125 Cty Hwy M
Boulder Junction, WI 54512
Phone: 715-385-2727

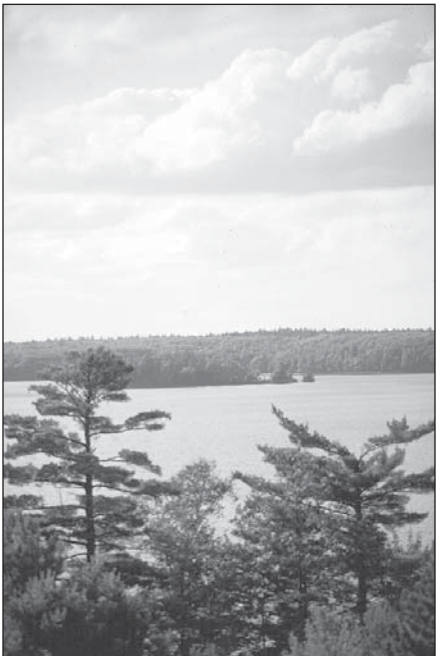
Black River State Forest
910 Hwy. 54 East
Black River Falls, WI 54615
Phone: 715-284-4103

Governor Knowles State Forest
PO Box 367
Grantsburg, WI 54840
Phone: 715-463-2898

Brule River State Forest
6250 S. Ranger Rd
Brule, WI 54820
Phone: 715-372-5678

Flambeau River State Forest
W1613 Co. Rd. W
Winter, WI 54896
Phone: 715-332-5271

Peshtigo River State Forest
N10008 Paust Lane
Crivitz, WI 54114
Phone: 715-757-3965



Geology of the NHAL State Forest

Geologists tell us that granite mountains, as high as the Rockies, made up much of Wisconsin’s surface nearly two billion years ago! Imagine standing on a mountain right here! After mountains formed, hundreds of millions of years of erosion wore them down, creating a gently-rolling granite plain.

Following nature’s smoothing forces, a number of great inland seas invaded Wisconsin and deposited thick layers of sandstone and limestone on top of the old granite plain. It is hard to know if this specific area of the “Northern Highlands” was ever under the sea waters since there are no sandstone or limestone layers here. If there were, they were probably partially removed by a long period of erosion. Any remnants were then removed completely by thick glacial ice that ground over this area during the past one million years.

The last glacier melted and retreated from this area about 10,000 years ago and in melting it dropped incalculable tons of glacier-transported boulders, rocks, gravel, sand and clay on the old granite “dome” of the Northern Highlands region. The stagnated ice melted unevenly, thus, it dropped its rock load unevenly. Because of this, we have hills and low spots known as swells and swales, knobs and kettles, crevasse fills and potholes, ground moraines and lakes. Many of the forest’s lakes were formed when ice blocks that had separated from the main ice mass, were buried under or surrounded by glacial debris. On melting, the ice blocks left depressions that filled with water.

Many of the shallow lakes that existed immediately after the glacier melted have now been partly filled by inwashed sand and silt and semi-decomposed vegetation. These exist today as wet marshes, bogs and swamps.

Thus it is, that the glacier gave us the beautiful lake, swamp and forest country we all enjoy today! Wherever you go in the forests, you’ll see countless rocks and very large boulders that hitch-hiked to their present locations in the ice of glaciers! Most of these rocks were “born” in Canada. Parts of the old granite plain stick up above the glacial rocks in a few places in northeastern Wisconsin, but most of the area is veneered by extremely thick layers of glacial rocks and soils called ground moraine.

Real Estate Management in the NH-AL State Forest

By Sonja L. Margitan
Land Control Specialist

The nucleus area of the Northern Highland-American Legion State Forest has been under conservation forest protection longer than any other forested area in the state. “In 1904, the Commissioners of Public Lands, in accordance with the laws of 1903 (the first forestry law), set aside a forest reserve of some 40,000 acres in Forest, Oneida and Vilas Counties. In 1904, upon my (E.M. Griffith’s) request, the Commissioners of Public Lands added 20,000 acres in Iron County. The legislature of 1905 added to the state forest reserve, all state lands north of Town 33, and in June 1906, Congress passed Senator LaFollette’s bill granting to the State of Wisconsin for forestry purposes, 20,000 acres of vacant government land. Thus, in a little over two years, the forest reserves have grown from 40,000 to 254,072 acres.”

The preceding was taken from the first report of the State Forester, E.M. Griffith, in 1906, published in the NH-AL State

Forest 1982 Master Plan. It briefly covers the beginning of the state forests systems, as we know them today.

From these forest reserve lands, the state legislature established the Northern Highland State Forest in 1925, and the American Legion State Forest in 1929. They were managed as separate properties until 1968 when they were combined into one administrative unit for economic reasons.

Today, the Northern Highland-American Legion State Forest is Wisconsin’s largest state owned property. A new acquisition goal of 291,200 acres was approved in the new Master Plan by the Natural Resources Board in October 2005. The state forest owns approximately 231,000 acres. Privately owned or other lands are also contained within our pristine forest.

One of the new Master Plan highlights is approval of the Forest Boundary Expansion. The largest expansion area lies north of the existing property boundary, which now extends to the Wisconsin/Michigan boarder. Two small expansion areas lie to

the south of the forest along the Wisconsin River and near the Rainbow Flowage. The expansion areas and the revised boundary are shown on Map 61 in the Final Master Plan document or can be found on the NH-AL State Forest website: http://dnr.wi.gov/master_planning/nhal/.

Acquisition priorities within the state forest vary from year to year and are based on a variety of factors, such as resource management or recreation needs and available funding, but acquisition is always based on the landowner’s willingness to sell or donate their property.

Because of the size and complexity of this property, a Land Control Specialist is on staff at the Trout Lake Forestry Headquarters in Boulder Junction. The purpose of this position is to advise the Forest Superintendent on land control issues and keep the Superintendent apprised of all land program initiatives. Other primary duties include: Administration of private landowners contacts for acquisition of land within the forest boundaries. Complete necessary property and boundary inspections required and resolve land trespass issues. Represent the forest on all questions regarding land-surveying disputes and administer and process contracts for private surveying services. Process all land covenants such as easements, access permits and land use agreements affecting the NH-AL State Forest.

The NH-AL State Forest receives many requests for easements, permits and land use agreements, which can restrict the Department’s future management options, limit the public’s full use and enjoyment of the land, and prevent natural succession of cover types. Requests on Department property are carefully considered and discouraged where practical alternatives are available. All requests deserve careful consideration, on how public use and future management of the land may be affected.

The Gathering Lifeway

by Paul Strong,
Tribal Liaison
Chequamegon-
Nicolet National
Forest

(Excerpts reprinted with permission from USDA Forest Service)

The old woman walked ahead of the rest of the clan. Her steps were slower than they had been 30 years earlier, but retraced a mental map of the area accurately as ever. Just over a rise and through a grove of hemlocks, she stopped and knelt. Her fingers dug among the duff and gently pulled a gleaming white root from the soil. Her husband offered tobacco in thanks to the Great Spirit and the clan spread out to search for more of the root to be used as medicine.

What century did you picture for the activity described above? 1500s? 1700s? 1900s? If you said, “All of the above,” you’re right. For uncounted generations, the Indian people of the Great Lakes region have gathered wild plants for food, medicine, building materials, and other uses. There is nothing close to a complete catalog of the plants used by the bands of Lake Superior Chippewa Indians also known as Ojibwe or Anishinaabe. As with any culture, the uses of plants evolved as new benefits were discovered. The gathering, along with fishing and hunting, was a significant part of the lifeway, a combination of utilitarian, cultural, and spiritual values.



Frank Lake

Treaties in 1836, 1837, 1842, and 1854 between the US Government and tribes of Lake Superior Chippewas contained language that reserved the rights of hunting, fishing, and gathering on lands ceded to the US by the tribes. The exercise of these rights was limited during the last one hundred years, but federal courts have affirmed the rights, and tribes are beginning to return to traditional gathering places and activities. Today, more are going into the forest to reap the bounty of nature, and, just as important, to keep alive the traditions of their tribe to pass on to the next generation.

A young girl asks her grandmother the name of the plant and where else it can be found. The old woman replies in the native tongue and the child says the word slowly at first, and then with more confidence. They gather the plants together and talk about how to prepare them for eating. In these simple acts of gathering wild plants, a part of the Anishinaabe lifeway is passed from one generation to another and there is renewed hope for the maintenance



Water Resources of the Forest

The Northern Highland-American Legion State Forest is located within the most abundant and closely concentrated surface water resource region in Wisconsin. Over 900 lakes lie within the forest boundaries. These waters range from numerous un-named lakes of less than ten surface acres to Trout Lake at nearly 4,000 acres. Numerous streams and rivers create a network of “roads” between the lakes

Sport fishing is a major recreational use of these water resources as well as swimming, skiing, boating, canoeing and sightseeing. These activities generate a tourist-oriented recreational industry, within and surrounding the forest—an industry which has a vast significant economic importance to the area.

A generalized listing of the sport fishery includes muskellunge, northern pike, walleye, largemouth bass, smallmouth bass and the commonly classified panfish species: bluegills, perch, crappies, pumpkinseed and bullheads. Cold water species include brook, brown and rainbow trout.

Other unique species that contribute to the sport fishery are sturgeon in the Manitowish River system, lake trout and whitefish in Trout Lake, and cisco more commonly associated with the larger deep lakes.

With the large diversity of fish species present, all types of angler’s interests can be met. Whether your preference is to pitch a bucktail over a weedbed in hopes of catching a musky, fishing a jig and minnow on a rock bar for walleye, slipping a canoe into a spring pond in the hopes of getting a fat brook trout, or just flipping a worm near a fallen tree for panfish, the opportunity exists within the state forest.

Forest Stewardship— A New Forest Master Plan

In October of 2005, the Northern Highland – American Legion (NH-AL) State Forest Master Plan was approved by the Natural Resource Board. The master plan is designed to inform both general and technical readers about the future use and management of the forest. It is a tool for guiding forest stewardship over the next 15 years.

The final draft of the master plan was received with great interest and many positive comments. Working with more than 700 submitted public comments, we managed to address and resolve many of the outstanding issues. The development of this plan could not have been possible without the quality input from the forest’s users.

The NH-AL State Forest is important to many people because it has the unique ability to meet many different needs. The forest generates employment and supports the economic well being of rural and urban communities alike, through the production of forest products we use daily and the recreation and tourism generated by the forest and lakes within the property. The forest provides opportunities for a diverse array of recreation such as hiking, snowmobiling, biking and hunting, as well as the opportunity to simply sit quietly and enjoy its natural beauty. In addition, the

Some Highlights of the New Forest Master Plan:

- ▲ Increasing slightly the pine cover type and reducing slightly the aspen. The options to feature either forest type remains intact for future planning processes.
- ▲ Supporting regional and state economies by increasing sustainable forest management and increasing the development of recreation areas and trails.
- ▲ Maintaining scenic management areas, including the Manitowish River, the rustic road along Highway K, and scenic lakes to protect and enhance values such as solitude and remoteness, and aesthetic qualities such as the sights and sounds of a natural environment.
- ▲ Expanding the property boundary to support future opportunities to enhance the area’s biological diversity and recreational potential.
- ▲ Monitoring invasive species and controlling their introduction and spread.
- ▲ Establishing a diverse stakeholder group to evaluate and make recommendations on designation of sustainable ATV trails, if appropriate.
- ▲ Increasing the number of developed and primitive camping facilities, including water-access-only sites to provide access to a variety of recreational settings.
- ▲ Increasing the number and length of hiking, biking and nature trails to accommodate the increasing demand for forest-based recreation.
- ▲ Maintaining quantity and quality of snowmobile trails.
- ▲ Establishing the 2,000-acre Bittersweet recreation area to provide a



forest cleans our air and water, provides habitat for a wide range of plant and animal species, and helps us sustain our quality of life.

The Department is committed to working with citizens and businesses alike to manage Wisconsin’s state forests in a sustainable manner for current and future

generations – an approach that incorporates ecological, economic, social and cultural values. We hope the information and vision in the master plan encourages enthusiasm and continued support for the future of the forest.

We thank all who participated during the planning process and provided input

about issues that are important to us all. Together we can ensure that the NH-AL State Forest continues to benefit current and future generations. The completed NH-AL Master Plan & EIS and related information can be found on the DNR Forestry webpage at: http://dnr.wi.gov/master_planning/nhal/

Willow Flowage Scenic Waters Area

With limited development and access, the Willow Flowage is a large island studded reservoir with a truly wild flavor. The property is located in west central Oneida County and includes 73 miles of shoreline (95% of which is undeveloped), 106 islands, and 7 boat landings. The entire property encompasses more than 17,000 acres where hunting, fishing and hiking opportunities abound.

There are 34 rustic campsites scattered along the shoreline and islands; all offer breathtaking views and quiet solitude. Campsites are occupied on a first come first serve basis with no registration and no reservations.

Designated as an Outstanding Resource Water in 1997, the Willow Flowage supports a diversity of aquatic plants, fish, and wildlife. Abundant walleye and panfish populations, along with northern pike, muskellunge, and large and smallmouth bass, make fishing the primary draw. White-tailed deer, bear, ruffed grouse, ducks, loons and even wolves roam the area.

An active forestry program is in place on the Willow Flowage to promote wildlife, emphasize forest diversity, and to promote a natural and aesthetically pleasing appearance. Future light thinnings of selected trees and occasional prescribed burns will help restore the shoreline to historic forest conditions dominated by long-lived tree species such as red and white pine.

The Willow Flowage is accessible from US Hwy 51 by heading west on Co Hwy Y just south of Hazelhurst. For a wilderness experience described as “almost Canada”, come visit the Willow Flowage Scenic Waters Area. For more information contact Tom Shockley, Property Manager, at 715-358-9259.

Art Oehmcke State Fish Hatchery



The Art Oehmcke State Fish Hatchery is one of the oldest hatcheries still in operation in Wisconsin. This facility was established as a bass hatchery in 1901. Since that time it has gone through three major renovations. The most recent changes provided us with state-of-the-art equipment for hatching and rearing muskellunge, walleye, white sucker, and lake trout.

Muskellunge, walleye, and white sucker eggs are collected from mature wild fish captured in fyke nets early each spring. Eggs and sperm (milt) are collected by gently pressing the abdomen of the fish. After expelling the eggs or sperm, the fish are released, unharmed, back to the wild. Each year 2.5 million musky, 27 million walleye, and almost 100 million white sucker eggs are collected.

Fertilized eggs are transferred to the hatchery and are placed into hatching jars. A computerized water temperature control system is used to mix hot water or cold water from Clear Lake with our main water supply from Madeline Lake. This allows us to control the water temperatures in all 1,020 jars. In the wild less than 0.1% of the eggs deposited will hatch; whereas

60% to 95% of the hatchery incubated eggs will hatch.

Late April, May, and early June are the best months for seeing fish in the hatchery. Newly hatched fish (sac fry) have a yolk sac that provides nutrients they live off until they begin to feed on plankton. Walleye swim out of the hatching jars into the fry tanks immediately after hatching while musky swim out of the jars 7 to 10 days after hatching when the yolk sac is gone. The fish are then transferred to lined or earthen ponds, or stocked into lakes as fry.

When the fry are transferred to the ponds they require enough of the right size food to eat. Musky will start feeding on zooplankton, then switch to white sucker fry after about 7 days. As the musky increase in size they require larger forage until adult fathead minnows and shiners can be used. Musky fingerlings grow about one inch a week through the summer. They are 8 to 12 inches long in October when they are stocked into the lakes.

Walleye will feed on zooplankton until late June when they are harvested at 1.5” to 2.0”. Some walleye will be restocked into ponds and fed minnows until October. These “extended growth” walleye will be

6 to 8 inches long when stocked.

When the fish are ready to be harvested, the new lined ponds are drawn down, concentrating the fingerlings into harvest kettles at the deep end of the ponds. The fish are held in these kettles until dip-netted out, weight counted, and loaded onto tank trucks. These trucks have oxygenated tanks that keep the fish from being stressed on the trip to their final destinations. The water bodies to be stocked with these fish are predetermined by local fisheries biologist based on management needs.

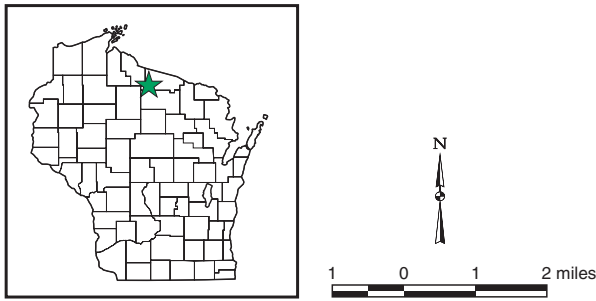
A unique aspect of this coolwater hatchery is our ability to raise a coldwater species, such as lake trout. In November crews spawn adult lake trout and the eggs are put in hatching jars until they hatch in January. Approximately 100,000 of these trout are stocked each year.

Guided tours are conducted at 11:00 a.m. and 2:00 p.m., Monday through Friday, from Memorial Day to Labor Day (except holidays). Group tours can be arranged by contacting the Hatchery at 715-358-9215, Art Oehmcke State Fish Hatchery, 8770 Hwy J, Woodruff, WI 54568, 8:00 a.m. to 4:30 p.m. Monday through Friday.

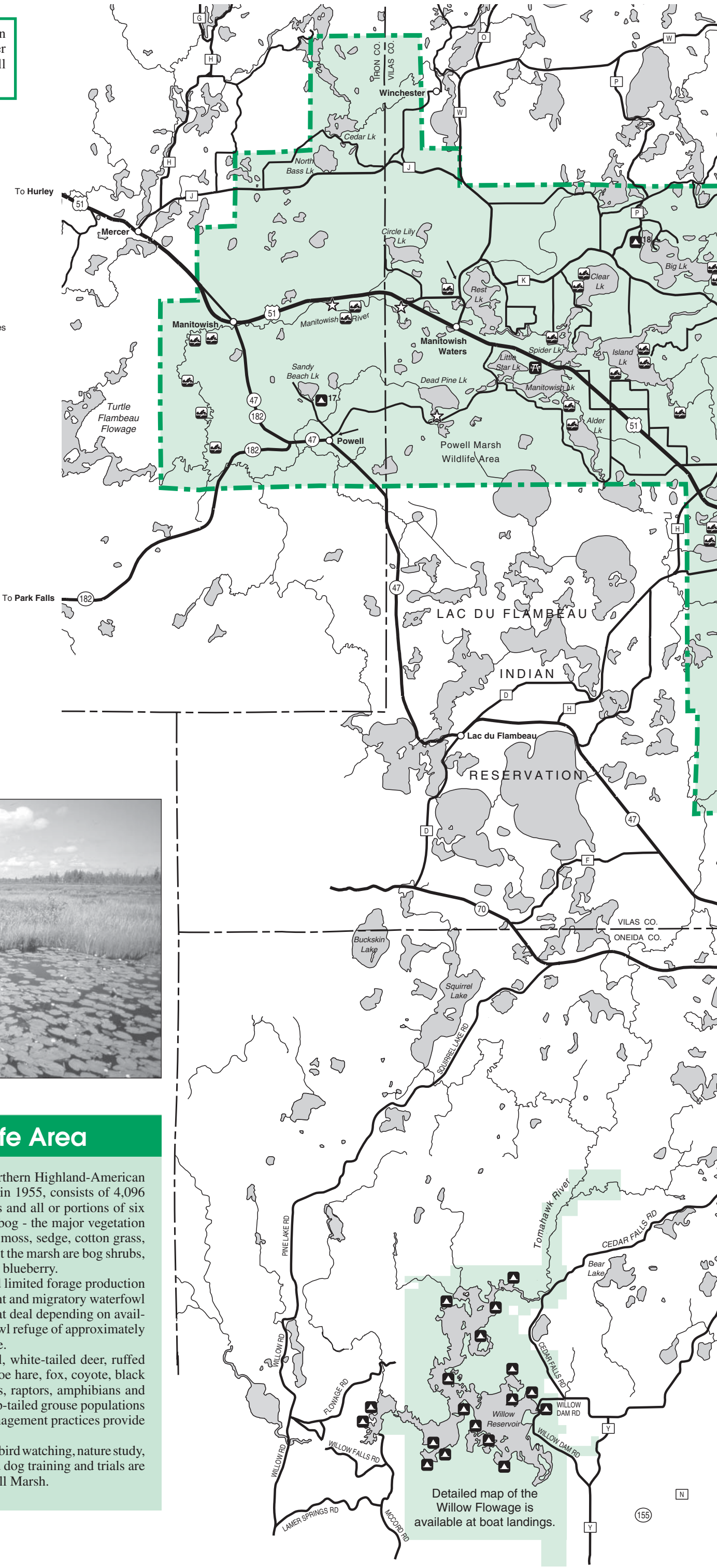


Aerial view of the Willow Flowage

This map does not yet reflect any NH-AL Master Plan changes or recent boundary expansions. It is however accurate enough for general purposes. Any changes will be reflected in the 2007 version.



- Forest Boundary
- NHAL Forest Headquarters
- Woodruff Service Center/ Fish Hatchery
- Picnic Area
- Wayside or Vista
- Interpretive Center (Crystal Lake)
- Trail Head;
- Hiking Trail
- Nature Trail
- Mtn Bike Trail
- Ski Trail
- Mobility Impaired Access
- Bearskin State Trail



Powell Marsh Wildlife Area

Powell Marsh Wildlife Area

The Powell Marsh Wildlife Area lies within the Northern Highland-American Legion State Forest. The wildlife area, established in 1955, consists of 4,096 acres including approximately 648 acres of uplands and all or portions of six natural lakes. Powell Marsh is an open acidic peat bog - the major vegetation on the semi-wet or peat soils consists of sphagnum moss, sedge, cotton grass, tickle grass and blue joint grass. Scattered throughout the marsh are bog shrubs, leatherleaf, bog rosemary, birch bog, bog laurel and blueberry.

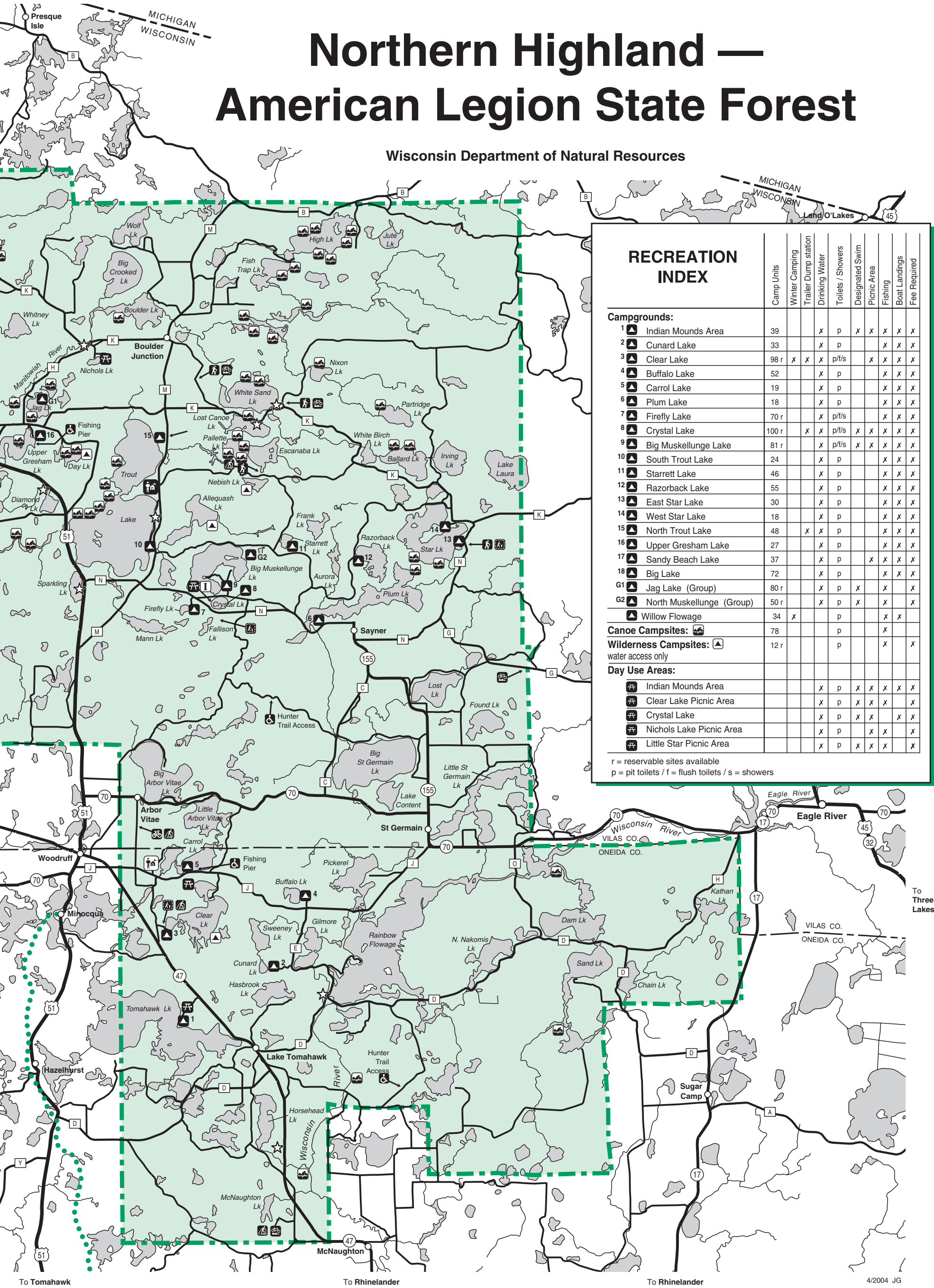
A combination of flooding, burning, mowing and limited forage production is used to increase the area's attractiveness to resident and migratory waterfowl and wildlife. Fall goose use on the area varies a great deal depending on availability of feed and fall migration patterns. A waterfowl refuge of approximately 1,800 acres is the focal point of migratory goose use.

Some wildlife species on the area are waterfowl, white-tailed deer, ruffed grouse, muskrat, mink, beaver, otter, fisher, snowshoe hare, fox, coyote, black bear, numerous songbirds, eagle, osprey, shorebirds, raptors, amphibians and reptiles. One of the last remnant populations of sharp-tailed grouse populations in the region exists on the wildlife area. Current management practices provide the opportunity to maintain this population.

Hunting, furbearer trapping, fishing, photography, bird watching, nature study, berry picking, hiking, minnow trapping for bait, and dog training and trials are some of the common recreational activities at Powell Marsh.

Northern Highland — American Legion State Forest

Wisconsin Department of Natural Resources





Fallison Nature Trail

Trails: A Year Round Experience

The NHAL State Forest has an abundance of maintained multi-use trail systems offering opportunities for hiking, biking, and self-guided nature walks in the spring, summer and fall and snowshoeing and cross-country skiing in the winter. A new disabled access trail, the Tom Roberts Memorial Trail, starts at the Crystal Nature Center in the Crystal Campground Day Use Area. It is paved and less than a mile long.

The brochure, *Trail Guide*, will help you decide which trail is best for you. *Trail Guide* contains information on location, use, length and terrain of the designated trails. Pick up *Trail Guide* at the trailheads, contact stations, Woodruff Service Center, and the Trout Lake Forestry Headquarters.

Hiking is allowed anywhere on the forest, is lots of fun and a good way to get close to nature and understand your environment a little better. There are hundreds of miles of old logging roads and snowmobile trails that offer good opportunities for explorations as well. Keep in mind that on unmarked trails you will need to pay special attention to your route so you can find your way out.

Be aware that the trails vary in difficulty and conditions can change rapidly due to weather and heavy use. Designated biking and groomed ski trails require a state trail pass for those patrons sixteen years of age and older. Pets are not allowed on nature trails or groomed ski trails.

The forest offers four interpretive nature trails. All are designed to teach a little about forest history, wildlife, plants, and the cultural history of the area. Three forest trails are designated for mountain biking.

Cross-country skiing is a popular winter sport. Four trails on the forest are groomed for skiing when snow conditions permit (the Shannon Trail is groomed by volunteers). There are also five designated snowshoe trails. The parking lots at the trailheads are plowed for your convenience. For those who care to break their own trail the possibilities are endless.

So come out, look, listen and enjoy the beauty and splendor of the NHAL State Forest and Wisconsin’s northwoods.

Trail	Type	Use
Escanaba	Hiking	Hike and Ski (groomed)
Fallison	Nature	Hike and Snowshoe
Lumberjack	Biking	Hike, Bike, Ski and Snowshoe
Madeline	Biking	Hike, Bike and Ski (groomed)
McNaughton	Biking	Hike, Bike and Ski (groomed)
North Trout	Nature	Hike and Snowshoe
Powell Marsh	Hiking	Hike, Ski and Snowshoe
Raven	Nature and Hiking	Hike and Ski (groomed)
Shannon	Hiking	Hike and Ski (groomed)
Star	Nature and Hiking	Hike and Snowshoe
Tom Roberts Memorial	Disabled Access	Hike



Star Lake Nature Trail

Camping In The Forest

Family Campground—There are 18 developed family campgrounds available on the Forest with a total of 865 family campsites.

Registration—From the Wednesday before Memorial Day through Labor Day weekend: Crystal, Muskie, Firefly Plum and South Trout campgrounds register at the Crystal Lake contact station, and Indian Mounds, Carrol and Clear Campgrounds register at the Clear Lake contact station. At the other family campgrounds, set up your camp and the Resident Manager will register you on his/her daily rounds. All off-season campers are required to self-register prior to setting up camp at the campground entrance.

Campsite Reservations—The reservation system runs from the Thursday before Memorial Day to Labor Day. In off-season, all open sites are first come first serve. Campers are able to make reservations 11 months in advance for the following campgrounds: Crystal, Muskie, Firefly, Clear, Indian Mounds, Musky Group, Jag Group, and Alleguash, Day, Nebish and Clear Wilderness sites. Reservations are made by calling Reserve America at 888-947-2757, or by using the Internet web site at www.wiparks.net.

Group Campgrounds—Two group campgrounds are located at Jag and North Muskellunge Lakes. Jag group campground is **tent only**. Musky group allows wheeled-campers.

Backpacking, Wilderness and Canoe Campsites—78 canoe sites are available for **one night only** camping on a first come first serve basis. The forest also has 12 wilderness sites. A nightly fee is charged for wilderness sites, and they may be reserved. Wilderness sites are **water access only**. Backpack camping is permitted using the Lumberjack Trail (other areas are available, please ask about more backpacking opportunities). A permit is required for this type of camping. Special permits may be issued at the Woodruff Service Center or the Trout Lake Headquarters.

Firewood—Firewood is sold at the contact stations Memorial Day weekend through Labor Day weekend. At other times of the year firewood is available from private vendors in the area.

Canoeing, Anyone?

Did you bring a canoe? If so, you can really enjoy the lakes and streams of the Northern Highland-American Legion State Forest. There is seemingly endless water, thanks to past glacial action which left big lakes, small lakes, potholes, rivers and streams. Canoe rental and shuttle services are available in many nearby communities.

A look at a detailed map of the northern lake country will show you possibilities for short or long canoe trips. Chains of lakes, twin lakes joined by natural channels, rivers and larger creeks offer beautiful, ever-changing views of wooded shorelines, swamps, marshes and bogs. There are many campsites along these “water trails”.

Canoeing early in the morning is something you’ll always remember. You’ll see the sunrise, generally have placid waters, see and hear more animals (especially songbirds, ducks and loons) and you’ll escape the glare, heat and wind of midday.

Evening hours are great for canoeing too, often giving you long looks at deer, raccoons, mink and porcupines at the water’s edge, or sometimes beaver, otter and muskrats in the water.

Paddling on the mirror-like lakes on a moonlit night is another delightful, relaxing activity—but remember to have lights on your craft! Whenever and wherever you paddle be certain to have your life preservers with you, and please be careful!



Trailer Dump Station—Trailer dump stations are located at Clear Lake, Crystal/Muskie, and North Trout campgrounds. The dump stations are for holding tanks and a fresh water fill-up tower is available. Campers may not drain dish waste water or sewage onto the ground.

Lost And Found—A lost and found service is maintained at the Crystal and Clear contact stations. Found items may be turned in and lost items reported at the office or contact station. Please help us return items to their rightful owners.

Garbage Pickup And Recycling—Dumpsters and recycling stations are located in each campground. Please cooperate by taking garbage to the dumpster and recycling station. Please leave your campsite cleaner than it was before you arrived. Be concerned enough to pick up after careless visitors.

Shelter—An enclosed shelter is located at the Crystal Lake picnic area. The shelter is available for reservations through the Trout Lake Forestry Headquarters. Cooking and camping inside the shelter is not permitted.

Carry In— Carry Out

Welcome to your state forest! You’ll notice a change in the picnic areas, shelters, beaches, and other day use areas—no garbage or recycling bins.

From now on, when you visit many Wisconsin state parks, forests, and recreation areas, you’ll need to take your garbage and recyclables home with you.

Why the change?
Home away from home: The parks and forests belong to all of us...and just like home...we need to care for them and keep them clean.

Less mess: Removal of the garbage and recycling containers eliminates the smells and mess they create. It also cuts down on yellow jackets and other pests.

Reduce, reuse, recycle: Wisconsin state law requires us to recycle many materials we used to throw away. Better yet, we can make new choices of what to bring with use. The more reusable things we pack, the less garbage we’ll create. It’s good for us and for our earth home.

Thanks for helping out by carrying out what you’ve carried in.



Bald Eagles, Osprey, and Common Loons



Adult Osprey *Pandion haliaetus*

The 220,000 acres of the Northern Highland-American Legion State Forest spread across the heart of the great inland lakes region of Vilas, Oneida, and Iron Counties. This landscape of lakes and forests supports a dense population of bald eagles, osprey, and common loons.

There are over 900 lakes within the boundaries of the Northern Highland-American Legion State Forest. These lakes support 57 pairs of nesting bald eagles, 45 pairs of nesting osprey, and about 100 pairs of nesting common loons. The state forest is indeed a treasure land of lakes, forests, eagles, ospreys, and loons. The sights, smells, sounds, and feel of this state forest make it a jewel in Wisconsin's system of public lands.

DNR Wildlife Biologists keep track of bald eagles, osprey, and common loons by counting nesting pairs. A pair of adult birds will build a nest and defend a territory. The territory may include a small lake, several lakes, or a bay of a large lake.

Trout Lake, north of Woodruff, encompasses 3,816 acres in two large basins. This lake is large enough to support three pairs of eagles, one pair of osprey, and two pairs of common loons. Big Muskellunge Lake is located just east of Trout Lake. It is 930 acres in size and supports two pairs of eagles and two pairs of common loons.

Bald eagles require two or three small lakes to support a nesting pair while common loons need a lake of at least 20-acres in size to nest successfully. Osprey prefer shallow lakes or flowages.

The Rainbow Flowage on the American Legion State Forest is a shallow reservoir. The Rainbow Flowage is 2,035 acres in size and supports 12 pairs of osprey, six pairs of eagles, and one pair of loons.

The shallow waters of the flowage make excellent fishing grounds.

Osprey fish by circling several hundred feet above the water and scanning for fish. When they spot a fish they hover then fold their wings and plunge talons first into the water. About half the time they successfully capture a panfish. With several powerful wing beats the osprey fly up out of the water. After a few more wing beats the osprey will, like a dog, shake vigorously. After a few additional wing beats the osprey turn the fish in their talons so the fish's head points forward and off they fly to their nest. This ritual occurs every catch.

Bald eagles take a wide variety of fish but their favorites are bullheads, northern pike, and suckers. Eagles will also take waterfowl, muskrats, and turtles. The eagle's motto must be "waste not want not" because they consume and digest all of their prey. While humans scale the fish, remove the internal organs, cut off the head, fins and tail; eagles eat the whole fish. In fact an eagle's nest is a very tidy place. Only the biggest bones, such as the northern pike's jawbone or the turtle's shell, remain in the nest.

Common loons are powerful underwater swimmers that dive for minnows and other small fish. Loons usually select a quiet bay with a good supply of small fish for a nursery. In this bay the loon family will spend the summer months diving for fish and guarding against attacks from eagles and unpaired loons.

Conservation

Eagles, osprey, and loons are sensitive to disturbance by humans. When enjoying the State Forest's lakes stay clear of eagle, osprey, and loon nests and give them room to fish and raise their families. Funds used to protect and conserve eagles and osprey come from people who contribute to DNR's Adopt-A-Nest Program. Loons are protected through the Loon Ranger Program of the Sigurd Olson Institute. For More information contact: Ron Eckstein, DNR Wildlife Biologist in Rhinelander at 715-365-8999, DNR, 107 Sutliff Ave., Rhinelander, WI 54501.

Abundant Wildlife

Most of the animal species that occur in northern Wisconsin are represented in the Northern Highland-American Legion State Forest because of its size and diversity of habitats. The relative abundance of individual species is proportional to the quantity and distribution of the various habitat types.

Over fifty species of mammals have been observed in the forest: of these the most common are white-tail deer, snowshoe hare, squirrels, beaver, mink, otter, fox, coyote, black bear, fisher and numerous small mammals. In addition, pine marten, moose, and timber wolf are occasionally seen.

Approximately 244 bird species frequent the forest, or 73% of all the bird species recorded in Wisconsin. Many of these are transients, only stopping to feed or rest during migration. Be sure to keep your eyes open to see a soaring bald eagle or an osprey and your ears tuned in to hear a loon or two.

Twenty-seven species of reptiles and amphibians are known to be present. Common reptiles include eastern garter snake, northern water snake, snapping turtle and eastern painted turtle. The amphibians include frogs, toads and salamanders.

The wildlife management program on the forest consists of an integrated approach to protect existing critical habitat types along with implementing management practices to enhance habitats favorable to a variety of species. The goal is to provide an opportunity for a high quality wildlife experience for both hunting and non-hunting interests.



Common Snapping Turtle *Chelydra serpentina*

Naturalist's Corner

Summer Nature Hikes and Programs

Welcome to the Northern Highland American Legion State Forest! I hope to make your stay more enjoyable and more educational with a variety of programs and hikes. From Memorial Day weekend through Labor Day weekend, guest speakers and artists, seasonal education staff, and I regularly offer activities designed to enlighten and entertain you. Many programs are given in the Crystal Lake nature center, but some are given outdoors. Meeting places vary for nature hikes.

Schedules for summer hikes and programs are posted at the nature center and on bulletin boards in the campgrounds. You may obtain copies of the schedules at the nature center or contact stations, or get them from education staff, resident managers, or campground hosts. Programs are also advertised in the local newspaper, on local radio stations, and on the Internet at: www.dnr.wi.gov/org/land/parks/interp/

All hikes and programs are free and open to the public. However, a Wisconsin State Parks sticker is required in all public use areas of the forest.

School-year Hikes and Programs

Welcome teachers and group leaders! Contact the naturalist at the Woodruff office for information about hikes and programs available to school and youth groups during the school year.



Junior Ranger and Wisconsin Explorer Programs

Make learning about nature a family activity! Explore the forest with our free activity booklets. The Junior Ranger program, for children in grades K-3, and the Wisconsin Explorer program, for children in grades 4 and up, feature fun, interesting, easy-to-understand activities that adults and children can do together. Upon completion of a booklet, each child receives a wildlife patch and a certificate of achievement. Ask staff at the forest office or any contact station for your booklet and get started on your adventure today!

Earn a Nature Poster

In spite of laws and postings to the contrary, some folks persist in being litterbugs. They pollute the forest, endanger wildlife, and interfere with our enjoyment of nature. Kids, please collect litter from the nature trails, picnic areas, beaches, and parking lots. For each bag of litter that you collect and turn in at a contact station, you will earn a token, which can be used to "purchase" a nature poster. Please help keep the forest healthy and beautiful. Thank you!

Watch for a Friendly Bear



While visiting or camping in the Northern Highland-American Legion State Forest this summer, watch for a friendly bear. That's right! There's a friendly bear that lives right here on the State Forest and visits campers regularly. The bear's name is Smokey; Smokey Bear, the fire prevention bear.

Each summer Smokey visits with vacationers and campers spreading his message on fire safety. While visiting the State Forest, Smokey asks that you please be careful with fire, particularly campfires.

Here are a few tips from Smokey on making your campfire safe:

1. Build your campfire away from overhanging branches, steep slopes, rotten stumps or logs, dry grass and leaves. Pile wood away from the fire.
2. Use fire rings, if provided, at your campsite. Scrape away leaf litter, duff and any burnable material in a ten-foot wide circle.

3. Keep water handy. Quick action will prevent fire spread to surrounding area.
4. Keep campfire small. A good bed of coals or small fire surrounded by rocks or built in a fire ring gives plenty of heat for cooking.
5. Never leave fire unattended. A breeze may come up while you're gone and spread the fire.

Before leaving your fire do the following:

1. Drown it with water. Make sure all embers, coals and sticks are wet. Move rocks; there may be burning embers underneath.
2. Stir. Add more water and stir again. Be sure all burning material has been extinguished and cooled.
3. Feel all sticks and charred material. Feel the coals and ashes. Make sure no roots are burning.

Smokey wants you to have an enjoyable time this summer visiting the State Forest. If you see him, stop and say hello. Let him know that you're doing your part in practicing fire safety. Follow his safety tips and the Forest will be here for many more years for all to enjoy.

Remember, as Smokey always says, "Only you can prevent wild fires!"

Our Concern—Your Safety

The safety of forest visitors is a priority so please be careful at all times and please impress safety precautions on your children. Following are some precautions to keep in mind.

Swimming—Swim safely. Swim at a designated beach where available. None of the Forest beaches have lifeguards. Don't swim alone, at night, or in unfamiliar places. Use caution when wading in unknown waters, as water depth may change abruptly. Watch small children closely near the water.

Boating/Canoeing—Every boat and canoe must carry a Coast Guard approved lifesaving device for each person aboard, and passengers should wear life-jackets at all times. Don't overload your craft. When boating, be aware of your wake and stay well away from swimmers. Please do not power load boats. If you coast on and trim up – this will help keep the lake bottom in place.

Hiking—Hike safely. Be aware that trails vary in difficulty. Not all trails are surfaced. There may be steep climbs or descents or stairways. Watch small children closely. Trail surfaces can become slippery when wet or covered by leaves or pine needles, or where there is loose gravel.

Biking—For your protection, wear shoes, pantleg clips and helmet when bicycling. Wear reflective clothing for bicycling at night. Keep your bike under full control at all times. Pull off the road or trail to view wildlife, flowers or scenic views. Be cautious in areas with loose gravel or

sand, wet leaves, or other loose material. Always be alert to traffic. Park and forest roads follow the terrain and often have steep grades, corners and intersections. Burrowing animals may leave bumps and holes in the trail. Bikes are not allowed on developed nature or hiking trails.

Skiing—Be aware that groomed trails cannot always be groomed on a daily basis. The quality of groomed trails can vary depending on heavy use, weather and terrain. Skiers should not ski beyond their abilities or allow speed to build up beyond the skier's ability to control their decent.

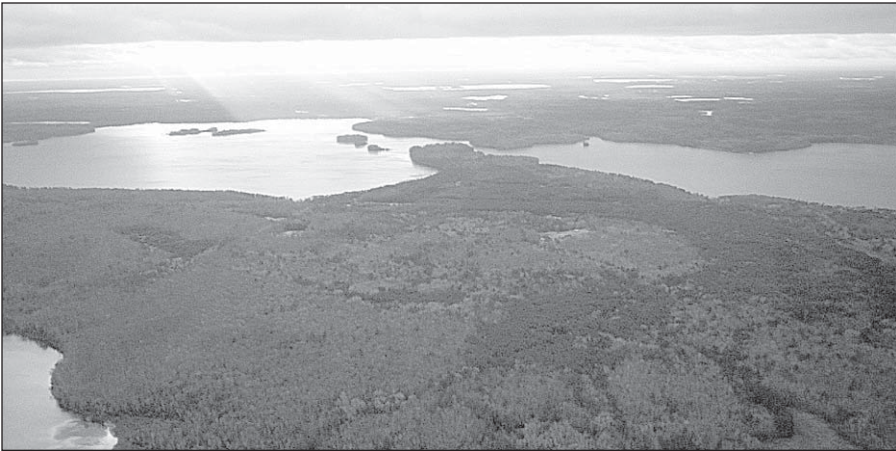
Plants—Never eat berries or plant parts unless you are certain of their identity.

Severe Weather—The time to prepare for severe weather is before the storm hits. Please develop a plan with your family on what you will do if threatening weather approaches.

Questions to Consider

- ▲ What county and city are you visiting?
- ▲ Where will you go if threatening weather is approaching?
- ▲ How will you find out if a storm is moving toward your area?
- ▲ How will you receive warnings and forecasts before the storm strikes?

A brochure on Severe Weather Information from the National Weather Service is available at the Contact Stations.



Aerial view of Cathedral Point, Trout Lake

Equal Opportunities

The Department of Natural Resources is an Equal Opportunity Employer. Those who are interested in the variety of career opportunities offered through the State Parks and Forest Program are encouraged to apply. For more information contact Woodruff Service Center, 8770 Hwy. J, Woodruff, WI 54568.

Do You Have A Disability?

The Department of Natural Resources is making an effort to provide accessible park and forest recreation facilities for people with special needs. We would like to hear from you regarding this effort and welcome your comments and suggestions.

Presently there are disabled access campsites at Crystal, Clear and Firefly campgrounds. These can be reserved. The Crystal Lake Nature Center offers a disabled access trail. There are also disabled access hunting trails available, picnic areas at Clear Lake and Crystal Lake and the Crystal Lake shelter building. Handicap accessible fishing piers are also located at Carrol Lake, Plum Lake and Upper Gresham Lake.

If you are using these facilities we would like to know what your opinion is, what you like, don't like, or would like us to consider. Please write to us at Trout Lake Forestry Headquarters, 4125 Cty Hwy M, Boulder Junction, WI 54512.

This Paper Aims To Help You Enjoy Your Visit

The State Park/Forest Visitor is published by the Department of Natural Resources to help you enjoy your visit. This paper answers visitor's most commonly asked questions about the Forest. If you have other questions, ask the manager or staff at the Forest office.

The Visitor is distributed without charge to Forest visitors. Any material in it may be reproduced as long as the Wisconsin Department of Natural Resources is acknowledged. Please don't throw the Visitor away. Take it home for future reference or pass it on to a friend. If you must discard it, use a container; don't litter, better yet, recycle the Visitor!

Volunteer

Do you like to camp? Do you enjoy meeting and helping people? Do you have talents and interests you would like to share? If your answers are yes, then you may be interested in the volunteer program at the NHAL Forest.

As a volunteer, you may choose to work in any area that interests you. Examples of opportunities are: Campground Host, Trail Maintenance, Naturalist/Interpretation, Visitor Information, Building and Grounds Maintenance.

For more information on the program or an application form, stop by the Clear Lake or Crystal Lake contact stations. By mail, direct your inquiry to the Forest Superintendent at 8770 Hwy. J, Woodruff, WI 54568.

Rules and Regulations

Our state forests are special areas that have been established to protect our natural heritage. Listed below are some guidelines for you to follow to enjoy your visit and comply with the rules.

Camping – All campers must obtain a camping permit; all camping permits expire at 3 p.m. on the last day of the permit. Camping is allowed in designated areas only and only one family or individual group of six people is allowed to occupy each campsite. Only registered campers are allowed in the campground after 11 p.m., which is also the quiet hour. Please set up camping unit on the designated camping pad and park all wheeled vehicles on the campsite drive.

Vehicle Admission Sticker – An admission sticker is required and must be attached to the windshield by its own adhesive when a motor vehicle is operated within a designated public use area.

Trail Passes –Are required for biking and skiing on designated trails for persons 16 years and older.

Pets — Must be on a leash no longer than 8' and under control at all times. Please clean up after your pet. **Pets are not allowed** in buildings, picnic areas, beaches, or on nature or groomed ski trails. Pets can not be left unattended on the campsite and please do not leave your pet in a vehicle.

Fires — Are allowed in designated fire rings and grills are provided in picnic areas for grilling food. Fires can not be left unattended and must be fully extinguished before leaving. Please do not move the fire rings, leave the fire rings where they were placed.

Fireworks –You can not possess or discharge fireworks. **Rule-of-Thumb** is anything that goes bang or up in the air is not allowed.

Emergency Information

Hospital—Howard Young Medical Center, Woodruff 356-8000

Clinic—Marshfield Clinic, Minocqua 358-1000

Ambulance— dial 911

Fire—In case of fire, notify Department personnel at the contact station immediately. Or dial 911.

Disturbances—In case of a civil disturbance, notify the nearest contact station, DNR office, or if necessary phone the Sheriff's Department (911). Be sure to write down auto license numbers, make and model of cars, campsite numbers, etc.

Severe Weather—In case of severe weather, visitors should check for updates at the contact stations or tune radios to the following stations: 92.5

WJJQ (Tomahawk Station), 95.9 WMQA (Minocqua Station), or 99.7 WIMI (Ironwood/Hurley Area).

Telephone—There is a public pay phone located in any of the small towns in the area, plus the Crystal Lake and Clear Lake contact stations from Memorial Day to Labor Day. Emergency telephones are available at the contact stations. Resident Managers and Campground Hosts have cell phones for emergencies.

Office Hours—The forest superintendent, law enforcement and naturalist program are located at the Woodruff Service Center (715/356-5211). All other forest operations are handled out of the Trout Lake Forest Headquarters (715/385-2727).

This publication is available upon request in alternate formats for visually impaired persons. Please contact the Division of Forestry at (608) 267-7494 to request an alternate format.

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